

**Idaho State Department of Agriculture
Bureau of Weights and Measures
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**INSTRUCTIONS AND GUIDELINES FOR:
WEIGHERS AND/OR WEIGHMASTERS**

When used in these instructions, the term "weigher" shall also mean, "licensed weighmaster" and he/she shall be the ultimate responsible party for the operation of the scale he/she is using.

Balancing the Empty Scale

Frequent visual inspections around the scale deck shall be made to ensure that nothing is binding the platform or interfering with the proper operation of the scale. The scale shall be maintained in zero balance at all times. The empty scale shall be balanced each day before weighing begins and thereafter its zero balance shall be verified whenever a weigher resumes weighing after an absence from the scale.

Before balancing the empty scale, the weigher shall notify parties outside the scale house of his intention and shall assure himself that no persons or vehicles are in contact with the platform. When the empty scale is balanced and ready for weighing, he shall so indicate by appropriate signal.

Weighbeam scales shall be balanced by first seating each poise securely in its zero notch, notches must be clean and free of debris. The balance ball is then adjusted to such a position that a correct zero balance is obtained. A scale equipped with a balance indicator is correctly balanced when the indicator comes to rest in the center of the target area. A scale without a balance indicator is correctly balanced when the end of the beam, after allowed to oscillate freely in the trig loop, comes to rest at the center of the trig loop.

A balance ball or other balancing device shall be operated only when balancing the empty scale and shall not be operated at any other time or for any other purpose.

Digital and Dial indications of zero must be visually verified and a ticket printed to indicate agreement between the indicator and printer. Balance tickets, including the time of day the ticket was printed, shall be filed with other scale tickets issued on that date.

Weighing the Load

A scale must be sensitive in response to platform loading if it is to yield accurate weights. A weighbeam scale with a balance indicator is sufficiently sensitive if when the scale is balanced at the center of the target, movement of the fractional poise one graduation will change the indicator $\frac{1}{4}$ inch or the width of the central target area, whichever is greater. A weighbeam scale without a balance indicator is sufficiently sensitive if, from a balanced condition, the addition of two minimum graduations will cause the weighbeam to come to rest at the bottom of the trig loop.

Friction at weighbeam bearings may reduce sensitiveness, a weigher should check the weighbeam daily to make sure there is sufficient clearance at pivot areas. Interferences or binding of the scale platform or other live parts of the scale are common causes of weighing inaccuracy. A weigher must satisfy himself before weighing that all such live parts have sufficient clearance.

Vehicle scales used to weigh livestock or other commodities shall be of sufficient length and capacity to weigh an entire vehicle only as a single draft. The weight of a coupled combination may be determined by uncoupling the various elements (tractor, semi-trailer, trailer), weighing each unit separately as a single draft, and adding the results.

A scales indications should not be recorded until the indication is stable within plus or minus 3 scale divisions for scales of more than 5,000 lb capacity. Digital indicating elements with printers are required to not print unless this parameter is met.

A GROSS and a TARE weight need to be recorded for each NET WEIGHT. Weight tickets need to be complete, including date, identification of commodity and owner, the three weight entries and signature of weigher.

If for any reason a weight ticket is not legible or not correct for any reason, that ticket should be marked "Void" and a new ticket generated before the load is removed from the scale. Voided weight tickets should be retained and filed with other tickets for each day.

Weighers Responsibility

The primary responsibility of a weigher is to determine and record the true weight of a commodity without prejudice or favor to any person or agency and without regard for commodity ownership, price, condition, shrink, or other considerations. A weigher shall not permit the representations or attitudes of any persons or agencies to influence his judgment or actions in performing his duties.

Unused scale tickets or those, which are partially executed, shall not be left exposed or accessible to other parties. All such tickets shall be kept under lock when the weigher is not at his duty station.

Accurate weighing and weight recording require that a weigher shall not permit his operations to be hurried to the extent that inaccurate weights or incorrect weight records may result. The gross, tare and new weights must be determined accurately to the nearest minimum graduation. Manual operations connected with balancing, weighing and recording shall be performed with the care necessary to prevent damage to the accurately machined and adjusted parts of weighbeams, poises, or other indicating elements and printing devices.

All growers, sellers, packers, dealers, and handlers, or others having legitimate interest in a load of whatever commodity are entitled to observe the balancing, weighing, and recording procedures. A weigher shall not deny that right or withhold from them any information pertaining to the weight. He shall check the zero balance of the scale or reweigh a load of whatever commodity when requested by such parties or duly authorized representatives of the Director.

General Precautions

The poises of weighbeams scales are adjusted and sealed to a definite weight at the factory and any change in that weight seriously affects weighing accuracy. A weigher, must observe if poise parts are broken, loose or lost or if material is added to a poise. Zero balancing or weighing shall NOT be performed while a scale ticket is in the slot of the weighbeam poise.

Stops are provided on scale weighbeams to prevent movement of poises behind the zero graduation when balancing or weighing. When the stops become worn or broken and allow a poise to be set behind the zero position, this condition must be corrected without delay.

Foreign objects or loose material in the form of nuts, bolts, washers or other material on any part of the weighbeam assembly, including the counter-balance hanger or counter-balance weights, are potential sources of weighing error. Loose balancing material must be enclosed in the shot cup of the counter-balance hanger and counter balance weights must not be of the slotted type. It is illegal to increase the capacity of a vehicle scale by adding counter poise weights. This practice is also very hard on the device and will cause pre-mature or catastrophic breakage of the device.

When a scale has been adjusted, modified, or repaired in any manner which can affect the accuracy of the weighing or weight recording, the weigher shall not use the scale until it has been tested and inspected and found to be accurate. However, a scale can be put into service by a registered service company, including notification of W&M, and this device may be used until such time as W&M can accomplish an inspection.